# Before the FEDERAL COMMUNICATIONS COMMISSION Washington, DC 20554

ket No. 18-314
1

#### OPPOSITION OF KUIPER SYSTEMS LLC

Kuiper Systems LLC, a wholly owned subsidiary of Amazon.com Services LLC (collectively, "Amazon"), opposes the Space Exploration Technologies Corp. ("SpaceX") petition for reconsideration of the earth station buildout extension<sup>1</sup> and respectfully requests its dismissal pursuant to 47 C.F.R. § 1.429(l).

Amazon supports the Commission's decision to extend the earth station buildout requirement because it brings regulatory certainty, promotes parity among earth station licensees, and provides the flexibility required by innovative non-geostationary orbit ("NGSO") systems. The Commission should dismiss the SpaceX Petition because (i) it is procedurally flawed given that SpaceX and others raised all arguments in the SpaceX Petition during the proceeding; and (ii) SpaceX's arguments remain—as was true during the proceeding—unsupported and contrary to the public interest.

## I. THE COMMISSION SHOULD DISMISS THE SPACEX PETITION AS PROCEDURALLY DEFICIENT.

The SpaceX Petition raises no new issues. The Commission considered all of SpaceX's arguments in its recently published *Part 25 Order*.<sup>2</sup> A petition for reconsideration must "[rely] on

<sup>&</sup>lt;sup>1</sup> See generally Petition for Reconsideration of SpaceX, IB Docket No. 18-314 (filed Mar. 31, 2021) ("SpaceX Petition").

<sup>&</sup>lt;sup>2</sup> See generally Further Streamlining Part 25 Rules Governing Satellite Services, Report and Order, 35 FCC Rcd 13285 (2020) ("Part 25 Order").

facts or arguments which have not previously been presented to the Commission[.]"<sup>3</sup> Here, SpaceX argues that NGSO earth station buildout extensions are unnecessary and may delay deployments for hundreds of NGSO gateways<sup>4</sup> as opposed to tens of geostationary orbit ("GSO") gateways.<sup>5</sup> The Commission already considered and rejected these arguments in the *Part 25 Order*,<sup>6</sup> and SpaceX admits it "argued [these issues] previously."<sup>7</sup> The SpaceX Petition therefore raises no new issues and requires dismissal.

#### II. THE SPACEX PETITION IS NOT IN THE PUBLIC INTEREST.

SpaceX incorrectly claims the Commission's new NGSO earth station buildout requirement would encourage spectrum warehousing and frustrate competition in the delivery of Fixed-Satellite Service ("FSS") to Americans.<sup>8</sup> The opposite is true. The Commission's decision reduces regulatory burdens by aligning the one-year build-out requirement for earth stations with the six-year deployment requirement of the NGSO satellites with which they communicate. This

 $<sup>^3</sup>$  47 C.F.R. § 1.429(b). See also Wireless E911 Location Accuracy Requirements, Order on Reconsideration, 36 FCC Rcd 570 ¶¶ 18-20 (2021) (dismissing two petitions as procedurally defective because they repeated arguments that the Commission fully addressed in an earlier decision).

<sup>&</sup>lt;sup>4</sup> In this pleading, Amazon references earth stations also as gateways.

<sup>&</sup>lt;sup>5</sup> See SpaceX Petition at 1-2.

<sup>&</sup>lt;sup>6</sup> Compare Letter from David Goldman, Director of Satellite Policy, SpaceX, to Marlene H. Dortch, Secretary, FCC, IB Docket No. 18-314, at 1-2 (filed Nov. 12, 2020) (expressing concern that the buildout extension "could lead to [NGSO FSS] warehousing hundreds of gateway sites," unlike GSO FSS, and asking the Commission to consider adopting a limited waiver process or capping the number of earth stations as alternatives to the buildout extension for NGSO FSS) with Part 25 Order ¶ 48 (finding "no basis for treating NGSO FSS earth stations differently than GSO FSS or other earth stations included in the scope of [the buildout extension] proposal," declining to adopt SpaceX's alternatives, and stating the Commission would consider any changes after monitoring the buildout extension's implementation). See generally Part 25 Order ¶¶ 46-53.

<sup>&</sup>lt;sup>7</sup> SpaceX Petition at 5.

<sup>&</sup>lt;sup>8</sup> See SpaceX Petition at 1.

rule modernization promotes competition by allowing efficient planning and deployment and providing flexibility to FSS licensees.

In relation to SpaceX's warehousing claims, Amazon notes that changing plans for licensed sites disrupts future system planning and delays service deployment to consumers. Earth station siting involves identifying locations and fiber access that meet the siting rules, securing leases, and obtaining licenses. In the Upper Microwave Flexible Use Service ("UMFUS") bands, the rules further limit the number of earth stations for which a satellite provider can seek a license. The time investment and considerable costs of obtaining a license outweigh any arguable benefit from warehousing earth station sites. Thus, substantial incentives already exist to ensure limited satellite-spectrum resources receive their most productive use in a timely manner.

SpaceX also asserts that "allowing NGSOs to apply for hundreds of sites years in advance of earth station construction would strongly incentivize all operators to engage in a race to stockpile attractive locations." Although some NGSOs' strategies may have been to launch satellites and thereafter plan the ground infrastructure required to serve customers, the regulations should encourage companies that develop and execute against more concrete, holistic system designs, including that of the ground infrastructure portion for an NGSO system. The Commission's recent rulemaking was correctly agnostic on the approach NGSO systems could take towards building their system and confirmed the same treatment is warranted for the different types of earth stations. If the Commission reversed its recent rulemaking, it would effectively

<sup>&</sup>lt;sup>9</sup> See, e.g., 47 C.F.R. § 25.136(a)(4)(i).

<sup>&</sup>lt;sup>10</sup> SpaceX Petition at 4.

<sup>&</sup>lt;sup>11</sup> See Part 25 Order ¶ 48. Excluding NGSOs from the benefits of the buildout extension would disadvantage NGSOs compared to GSOs, which are poised to deploy more gateways for new GSO satellites than legacy GSO satellites. See, e.g., Caleb Henry, ViaSat plans massive ground network

prohibit NGSO operators from designing their entire system, including the ground infrastructure, grossly favoring those who sped ahead with satellite deployments even if their overall system design is an incomplete work in progress.<sup>12</sup>

Furthermore, withholding access to earth station locations until a satellite operator reaches operational readiness would impose material costs and unjustified risks on NGSO operators. In response, the Commission adopted the new earth station rules to offer *all* applicants greater certainty and more operational flexibility: "[c]onsidering the benefits of streamlining, regulatory certainty, and parity among different types of earth station licensees, we agree . . . to expand on the build-out term[.]" 13

To preserve competitive and technology neutrality, Amazon and others have supported the Commission's decision to lengthen earth station buildouts.<sup>14</sup> Aligning earth station buildout requirements with space station buildout requirements recognizes the present-day reality that earth

\_

of smaller gateways for ViaSat-2 and ViaSat-3 satellites, SpaceNews (May 25, 2017), https://bit.ly/3nOj6K0 ("ViaSat [is] increasing the number of gateways by 'almost a factor of 10' [for the GSO FSS ViaSat-3 satellites.]") (emphasis added); Yezdi Antia et al. (Hughes), JUPITER High Throughput Satellite System— 500 Gbps from Space, Microwave Journal at 3 (Oct. 2019), https://bit.ly/3eTH2aX ("[Gateway] diversity is one option to combat large rain fades [for next-generation high-throughput GSO FSS]... While this simplifies the satellite architecture, it nearly doubles the ground equipment. . . . [By] adding redundant [gateways], the [user] availability improves significantly.") (emphasis added).

<sup>&</sup>lt;sup>12</sup> As of today's filing date, the Commission's International Bureau Filing System shows SpaceX has already sought authority for 49 NGSO FSS earth stations in the UMFUS band—approximately two times more than the other co-frequency NGSO FSS earth station applicants combined.

<sup>&</sup>lt;sup>13</sup> *Part 25 Order* ¶ 46.

<sup>&</sup>lt;sup>14</sup> See, e.g., Petition for Reconsideration of Satellite Industry Association, IB Docket No. 18-314, at 1-2 (filed Mar. 30, 2021) ("SIA Petition"); Letter from Will Lewis, Corporate Counsel, Amazon, to Marlene H. Dortch, Secretary, FCC, IB Docket No. 18-314, at 1 (filed Nov. 6, 2020).

stations and space stations are components of a single, integrated system for each operator.<sup>15</sup> Moreover, retaining harmonized buildout obligations for licensees would accomplish exactly what the Commission set out to achieve when it first proposed the rule: eliminate regulatory burdens, encourage investment in the satellite sector, and promote competition among operators without compromising regulatory incentives that satellite and earth station licensees already have to deploy resources efficiently and quickly.<sup>16</sup>

Finally, Amazon notes that the SpaceX Petition is premature because the Commission has had no opportunity to monitor the implementation of the *Part 25 Order* and "consider the need for a future rulemaking" in light of the facts.<sup>17</sup> Retaining the rule will allow the Commission to assess whether it is resulting in increased investment, innovation, and competition. Changing the rule now will *prevent* an informed evaluation.

#### III. CONCLUSION.

The SpaceX Petition raises no new issues and is not in the public interest. The deployment of competitive satellite-based broadband connectivity to all Americans relies on streamlined and modernized earth station buildout requirements. Existing rules and financial considerations discourage speculative earth station filings. Amazon supports the buildout extension rules adopted by the Commission because they encourage competition among satellite operators by promoting

\_

 $<sup>^{15}</sup>$  See SIA Petition at 2; see also Part 25 Order ¶ 47 ("Applying an extended build-out period to earth station licenses subject to section 25.136 will provide greater regulatory certainty to satellite operators planning newer-generation . . . NGSO satellites with narrow spot-beams.").

<sup>&</sup>lt;sup>16</sup> See, e.g., Further Streamlining Part 25 Rules Governing Satellite Services, Notice of Proposed Rulemaking, 33 FCC Rcd 11502 ¶¶ 2, 16 (2018); Part 25 Order ¶¶ 43, 46, 52.

<sup>&</sup>lt;sup>17</sup> *Part 25 Order* ¶ 48. *See also id.* ¶ 53.

parity and providing flexibility. Therefore, Amazon respectfully requests that the Commission reject the SpaceX Petition.

Respectfully submitted,

### /s/ Liliana Farfan

Liliana Farfan Corporate Counsel

Kuiper Systems LLC, an Amazon subsidiary 410 Terry Avenue North Seattle, WA 98109

May 6, 2021

#### **CERTIFICATE OF SERVICE**

I, Liliana Farfan, hereby certify that on May 6, 2021, a true and correct copy of this pleading was served via First Class mail upon:

William M. Wiltshire Paul Caritj Harris, Wiltshire & Grannis LLP 1919 M Street, NW Suite 800 Washington, DC 20036 David Goldman Space Exploration Technologies Corp. 1155 F Street, NW Suite 475 Washington, DC 20004

Counsel to Space Exploration Technologies Corp.

/s/ Liliana Farfan Liliana Farfan